

2023

(CBCS)

(2nd Semester)

ZOOLOGY

(Honours)

Paper : ZOO.C-4 (T)

(**Cell Biology**)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Explain the various models of plasma membrane structure with appropriate diagram. 15

Or

Write notes on the following : $7\frac{1}{2}+7\frac{1}{2}=15$

(a) Virus

(b) Facilitated transport across cell membrane

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(Turn Over)

(2)

2. Give a detailed account on the structure and functions of endoplasmic reticulum. 10+5=15

Or

Give a detailed explanation on the transport systems involving Golgi apparatus. 15

3. Explain the ultrastructure of mitochondria with appropriate diagram. Add a note on the semi-autonomous nature of mitochondria. 10+5=15

Or

Write notes on the following : $7\frac{1}{2}+7\frac{1}{2}=15$

- (a) Chemiosmotic hypothesis
(b) Peroxisomes

4. With proper diagrams, explain the structure of nuclear pore complex. Add a note on nucleolus. 10+5=15

Or

What is chromatin? Elaborate on the different types of chromatin. 3+12=15

5. Describe the process of mitosis with proper diagrammatic representations. 15

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(Continued)

(3)

Or

Write notes on the following : $7\frac{1}{2}+7\frac{1}{2}=15$

- (a) Microtubules
- (b) Microfilaments
